Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Review bids from March 31 letting and take action regarding project contracts

Billings District	CM-STPU 6904(1)	Main St. Improvements – Laurel
Missoula District	NH 5-2(124)56	Minesinger Trail – Mt 35
Missoula District	STPP 6-1(76)62	Weeksville – West
Glendive District	STPP 57-7(19)326	Business Loop-Glendive
	STPP-STPHS 57-7(20)327	2002-Signals-E Of Glendive
	IM 94-6(49)191	Dawson Co. Line-NE
	STPP 98-1(4)0	Business Loop-Glendive
Great Falls District	STPS 358-1(3)18	Pondera/Glacier Co. Slide Correction

### Background

After each bid letting, in preparation for the commission's conference call to take action regarding construction projects, staff meets to discuss the bids. The bid review meeting is usually held on a Thursday, one week after the bid letting. The bid review meeting for the March 31 bid letting falls coincidentally on April 7, the same day as the commission meeting. We will conduct the bid review meeting as part of the commission meeting to afford the commission the opportunity to see the process and staff at work. The commission will be able to take action to award project contracts immediately in lieu of the conference call scheduled for Monday, April 11.

#### Staff recommendations

Recommendations will be formulated during the meeting.

Notes/discussion

Staff person handling: Loran Frazier, Acting Chief Engineer and staff

Date/location: April 7, 2005 in Helena, MT

Item: Educational session

Design-build

- Change orders
- Certificates of completion

# Background

At the last meeting, commissioners requested information on design-build, change orders, and certificates of completion. More information follows.

Notes/discussion

#### Memorandum

To: Distribution

From: Mark Wissinger, P.E.

Construction Engineer

Date: May 2, 2003 Subject: Change Orders

The purpose of this Construction Memo is to rescind and replace all former memos directing Change Order policy. This memo rescinds and replaces applicable sections within the Construction Manual. To begin with, we need to redefine several terms and concepts;

Emergency Approval. This is the term we will now use for what was formerly called Prior Approval. Emergency Approval is more descriptive of the setting under which we will allow work to be done prior to execution of a Change Order. Emergency Approval will be reserved for conditions similar to those under which we allow non-certified materials to be placed. Specifically, if not performing the work poses immediate danger to traffic or the general public, or not performing the work would cause a delay that would result in damage to the project or adjacent property. Unless either of these conditions is present, Emergency Approval is not to be granted. The Highway Division Administrator, Operations Engineer or Construction Engineer is to grant emergency Approval. In their absence, the District Construction Engineer may grant Emergency Approval.

With the inception of the Design Project Manager concept, the idea of Discussion needs to be broadened. While Design Project Managers do not have approval or disapproval authority, their project development knowledge needs to be brought into play. They will be included in Discussion on all Change Orders in the future. The Design Project Manager's input is very important on any issue that may have an impact on conditions under which MDT has received permits by regulatory agencies. For example, any change in geometric design, to include changes in slopes, should be discussed with the respective Design Project Manager, as this could have an impact on permanent or temporary facility permits. This step should help us avoid enforcement actions by regulatory agencies.

Before beginning to list conditions for Change Orders we want to reiterate four important concepts about the writing of Change Orders.

First is the importance of including  $\underline{\mathbf{all}}$  the items that change in a Change Order. This serves two very important functions.

First, it gives the Department and the Transportation Commission an accurate picture of what the actual cost impact of a change is. Also, it could prevent potential disputes down the road.

Second, it is important to remember that until a Change Order is finally approved, or executed (has been signed by <u>all</u> parties) we have no contract for the work being performed, or guarantee of FHWA

participation on oversight projects.

Third, always use metric units of measure on metric contracts, and English units of measure on English projects. Under no circumstances may the units of measure be mixed in contracts. Lastly, justifications, cost breakdowns and supporting documentation should be included as an attachment to the Change Order.

# The following is a list of conditions under which Change Orders are required.

- 1. Any change in Contract Requirements. This could be a change to the Special Provisions, Plans, Specifications, Detailed Drawings or any information made a part of the contract by reference. The word "any" is to be taken literally. A frequent cause of disputes is the failure to document and legally execute contract changes. All reconstruction and major rehabilitation projects, at a minimum, are to include a sequence of operations. If the sequence of operations is adjusted from the contract requirements, a Change Order is required. If this Change Order makes the sequence less restrictive, there is to be some recognition of the risk the Department takes on by this adjustment. Specifically the Contractor must assume some responsibility for traffic and dust control, and any other item that is subject to overrun by a more liberal sequence of operations.
- 2. When a fair and equitable adjustment in the contract unit price is warranted under Subsection 104.02.3, Significant Changes in the Character of the Work. Please note that paragraph 2. of this Subsection makes reference to major contract items. This is the usual instance where this situation applies. We have written a number of Changes Orders for minor items that have underrun the estimate. This will be discontinued.
- 3. When a major contract item (an item having an original contract value in excess of ten percent of the total original contract amount) increases or decreases by more than 25%, and the cost change from the award subtotal for the item is greater than \$75,000.00. This may, or may not, require a change in the unit price, see Subsection 104.02.3.
- 4. When a non-major item underrun of overrun exceeds \$75,000.00 in cost. Traffic control items are no longer treated differently than other items.
- 5. When the District Construction Engineer determines that a Change Order is in the best interest of the Department.
- 6. Any change to a Typical Section that reduces layer thickness or may affect structural capacity.
- 7. Deviation from existing access control.
- 8. Additions, deletions, relocations of bridges or other structures.
- 9. Changes in the geometric design features such as alignment or

grade, which could affect sight distance, design speed or other operational characteristics and/or change the nature of the work. Geometric changes, which change the roadway "footprint", and could have an impact on permanent facility permits, also require Change Orders.

- 10. Any change in an environmental feature, which could require approval from another agency.
- 11. Contractor claim settlements.
- 12. Accepted Value Engineering (VE) proposals. All VE proposals must be routed through the Construction Engineer for review and approval prior to beginning preparation of the Change Order.
- 13. Change in the scope of work.
- 14. Departure from approved design standards.
- 15. When a non-QA does not meet all the contract requirements, but can be accepted at a reduced price, and that reduced price exceeds \$5,000.00, a Change Order is required. A memo to the project file may used to document all other miscellaneous price adjustments, and pay reductions made using the QA item.
- 16. Any change in the project limits. In such cases the Environmental Document must be amended to reflect the new project limits.
- 17. When there is a change to the Notice To Proceed date. The exception to this rule is when there is a "flex" time provision in the contract. If the contractor selects a date that is within the parameters established within the specification no Change Order is required.
- 18. Agreed price work that is performed outside of the Miscellaneous Work, Temporary Erosion Control or Traffic Control items. Change Orders are not normally required for agreed price items that are paid for under Miscellaneous Work, Temporary Erosion Control or Traffic Control.

Contractors are to be credited with time as per Subsection 108.07.3. If the money formula is not applicable to the Change Order being written, include justification for the additional time or reduction in time in the Change Order. Please review contract time assessment on an on-going basis, but particularly when the contract nears the 90% complete stage. If additional contract time is warranted inform the contractor by letter, with a copy to the Construction Bureau, and show the change on the C.B. 15 form.

Under current policy the Highway Division Administrator, Operations Engineer and Construction Engineer are authorized to execute Change Orders. District Construction Engineers are authorized to sign Change Orders with a cost not to exceed \$20,000.00. The Discussion process is still required for these Change Orders.

The Discussion process will be expanded to include the Design Project

Manager as mentioned previously. The Construction Bureau will perform this step, but that does not preclude any person involved in contract administration from talking to the Design Project Manager about project issues, including Change Orders. It is our hope that including Design Project Managers in this process will result in improved project design and development in the future. The primary contact for discussion is either a Bridge or Roadway Reviewer assigned to your area. Change Orders can also be discussed with the Construction Review Supervisor, Construction Systems Engineer or Construction Engineer. On FHWA oversight projects, a Field Operations Engineer should be included in all discussions by District personnel as soon as a Change Order is under consideration.

Discussion is the process of exchanging information and ideas, exploring alternates and arriving at solutions, and is not to be confused with approval. Preliminary approval occurs when the Highway Division Administrator, Operations Engineer, Construction Engineer, or District Construction Engineer signs the Change Order, and final approval may proceed. Final approval (execution) occurs, and work may begin, after all parties have signed the Change Order. The only situations in which work may proceed prior to final approval is when measurements of work already performed indicate a Change Order should be written, such as reasons 2, 3, 4, 11 or 15 listed above, or in Emergency Approval situations.

copy: FHWA

District Construction Engineers

District Construction Operations Engineers

District Administrators

**Engineering Project Managers** 

Construction Bureau

Staff person handling: Mike Wherley, P.E.; CTEP Section Supervisor

Date/location: April 7, 2005 in Helena, MT

Item: CTEP project certificates of completion / close-out activities

#### Background

The CTEP (Community Transportation Enhancement Program) Section was asked to make a presentation to the Commission describing the process for completion / close-out of CTEP projects, and issuance of the project certificate of completion. This is a follow-up to Mark Wissinger's presentation on the project close-out process within the Construction Bureau.

#### Summary

The project close-out process for CTEP projects differs from typical MDT construction projects in that local governments (county, city/town, and tribal) are the project owners and administer the projects at the local level. Project administration, inspection, and quality assurance are done by a project manager employed either by the local government, or, more typically, by a private consultant retained by the local government for design and construction engineering. MDT monitors the process through district CTEP liaisons.

Project close-out and issuance of the certificate of completion begins at the local level. The local government and/or their consultant sign off first. The certificate is then sent to the MDT district liaison, who concurs, then forwards the certificate to MDT headquarters, where the CTEP supervisor and the engineering division administrator concur and accept the project completion, respectively. The project construction is considered complete at this point.

The project is then ready for close-out at the CTEP administrative level. Since CTEP is a reimbursement program, the CTEP staff must ensure that all reimbursements to the local governments have been made; that all modifications to the federal fiscal programming have been completed; and that all project costs have been reconciled. When this process is completed, notice is sent to fiscal programming and to the Construction Bureau advising of final project close-out.

The close-out process can become prolonged when the local governments and/or their consultants aren't prompt in issuing the certificates of completion, or if the local governments don't request reimbursements in a timely fashion. The process has also been slowed within MDT due to the move of CTEP from the Planning Division into the Engineering Division and to staff reduction and staff turnover within CTEP.

Staff person handling: Jim Currie

Date/location: April 7, 2005 in Helena, MT

Item: Select locations for 2005 commission meetings

#### **Background**

The commission set the meeting schedule for 2005 during their March 7 teleconference, and agreed to select locations at the April meeting. Those meeting dates are as follows:

- . May 17-18, 2005
- July 27-28, 2005
- September 7-8, 2005
- . November 1-2, 2005
- December 7-8, 2005

In order to accommodate the annual Tentative Construction Program (TCP) meetings, however, the commission may elect to revise the meeting schedule. The following meetings are needed during a fairly narrow timeframe:

- A half-day work session in mid-October (preferably October 18–20)
- The district TCP review meetings (one day per district, probably during the week of November 7)
- A final meeting to review the entire Tentative Construction Program and take formal action, hopefully during the week of November 14

The commission has traveled to the following locations over the past three years:

```
2004
                February – Helena (District 3)
                April – Butte (District 2)
               June – West Yellowstone (District 2)
                August – Baker (District 4)
                October – Polson (District 1)
               December - Helena
2003
               January – Helena
               March - Helena
               May – Kalispell (District 1)
               July - Helena
               September – Miles City (District 4)
               November – Helena
2002
               February – Helena
                April – Livingston (District 2)
               May – Helena
               July – Missoula (District 1)
               September – Sidney (District 4)
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November – Helena

# Summary

The commission has made three visits each to districts 1, 2 and 4 since 2002. The commission has *not* visited any locations in district 5, or locations other than Helena in district 3, in recent years.

Notes/discussion

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Review speed limit studies

### Background

Staff has performed traffic and engineering studies for the following:

- Glen Old Highway 91 North (X route in Beaverhead County)
- US 89 Livingston South (Park County)
- MT 84 Four Corners West (Gallatin County)

Please see the attachments for more detail.

# **Summary**

The appropriate local government concurs with the recommendations put forth by MDT.

#### Staff recommendation

Staff recommends the commission approve the special speed zones as proposed.

Notes/discussion



# Montana Department of Transportation PO Box 201001 Helena, MT 59620-1001

#### Memorandum

To: Loran Frazier, P.E. – Chief Engineer

Highways and Engineering Division

From: Duane E. Williams, P.E. - Traffic and Safety Engineer

Date: March 16, 2005

Subject: Glen - Old Highway 91 North (X-route)

**Speed Limit Investigation** 

- □ Beaverhead County officials requested a speed limit investigation through the community of Glen. Glen is located north of Dillon on the frontage road (Old Highway 91) on the eastside of Interstate 15. This investigation was conducted for the purpose of reducing the statutory 70 mph speed limit through Glen.
- Old Highway 91 was constructed under project FAP 241 A in 1928. The typical section consists of two 11-foot travel lanes and two 1-foot shoulders. The community consists of a post office, the Glen Bar and numerous residences. There is also a campground and boat ramp/access to the Beaverhead River within the community.
- □ During a three-year period there was one accident reported in Glen. The accident rate is 3.38 accidents per million vehicle miles traveled.
- □ Motorist perception of the community and the immediate area surrounding the community varies. The typical travel speeds in Glen can range between 30 mph and 60 mph. There are more motorists concentrated within the central portion of this range of speed indicating that a speed limit below the 85<sup>th</sup> percentile speeds is a practical option. In an effort to promote additional uniformity in the travel speeds we recommend a 50 mph speed limit for the community. The proposed 50 mph speed limit represents the upper limit of the pace. The following recommendations were presented to Beaverhead County officials. Their comments concurring with the proposed 50 mph speed limit are attached.
- □ A 50 mph speed limit beginning at station 522+00, project FAP 241 A and continuing north to station 540+00, an approximate distance of 1,800 feet.

#### **Report Submitted to Beaverhead County Officials**

This investigation was conducted at the request of Beaverhead County Commissioners. In response to concerned citizens Beaverhead County has requested a 55 mph speed limit along the segment of Old Highway 91 that passes by the community of Glen. The speed limit along this segment of roadway is statutorily 70 mph. Local citizens are concerned about motorists speeding through the community.

The community of Glen is located along the east side of the roadway. The roadside development is dispersed along a 1,800 foot segment of roadway and consists of a post office, the Glen Bar and numerous residences. There is also a campground and boat ramp/access to the Beaverhead River within the community. The existing level of the development does not meet the definition to qualify as an urban district. The roadway is straight and flat as it passes by the community. There are some trees located next to the roadway just south of Glen that obscure motorist view of the community.

Old Highway 91 was constructed under project FAP 241 A in 1928. The typical section consists of two 11-foot travel lanes and two 1-foot shoulders. Passing restrictions are in place throughout the community. During this investigation in August 2002, the traffic volume was 270 within a 24-hour period.

#### **Accident History**

The accident history was reviewed for a three-year period from January 1, 2000 to December 31, 2002. During this period there was one angle type accident reported within the study area. The accident rate is 3.38 accidents per million vehicle miles traveled.

#### **Travel Speeds**

Vehicular travel speeds were sampled directionally at six locations in August 2002. North and south of Glen in the rural environment the 85<sup>th</sup> percentile speeds ranged between 68 mph and 71 mph. The pace of the traffic stream ranged between (55 mph – 65 mph) to (58 mph – 68 mph) with 38 percent to 42 percent of the traffic stream traveling within the pace. Eight hundred to 1000 feet north and south of the community boundaries, the 85<sup>th</sup> percentile speeds ranged between 66 mph and 70 mph. The pace of the traffic stream ranged between (46 mph – 56 mph) to (55 mph – 65 mph) with 31 percent to 36 percent of the traffic stream traveling within the pace. The lower travel speeds were observed in both the departing northbound and southbound travel lanes.

Within the community the  $85^{th}$  percentile speeds were 60 mph and 61 mph. The pace of the traffic stream was (38 mph – 48 mph) and (41 mph – 51 mph) with 24 percent to 33 percent of the traffic stream traveling within the pace.

The motorist population is dispersed evenly over a wide range of travel speeds. This is evidenced by the variation between the 85<sup>th</sup> percentile speeds and the upper limit of the pace of the traffic stream and the relatively small percentage of motorists traveling within the pace. In analyzing the distribution of the speed population we identified that there is close to the same proportion of the speed population traveling below the pace and above the pace as there is within the pace.

#### **Conclusions and Recommendations**

The results of this investigation support local desires for a special speed limit through the community of Glen. Both the 85<sup>th</sup> percentile speeds and the pace of the traffic stream are below the statutory 70 mph speed limit.

Motorist perception of the community and the immediate area surrounding the community varies. The 85<sup>th</sup> percentile speed is usually supported by a large proportion of the traffic stream. In this case the pace and the proportion of the traffic stream traveling below the pace support a speed limit that is less than the 85<sup>th</sup> percentile speed. The typical travel speeds can range between 30 mph and 60 mph through the community of Glen. There are a few more motorists concentrated within the central portion of this range of speed. In an effort to promote additional uniformity in the travel speeds we recommend a 50 mph speed limit for the community. The proposed 50 mph speed limit represents the upper limit of the pace.

A 50 mph speed limit beginning at station 522+00, project FAP 241 A and continuing north to station 540+00, an approximate distance of 1,800 feet.

In addition to the above speed limit recommendation we also identified non-departmental "Glen" guide signs north and south of Glen. We conclude that these signs were posted in an effort to improve motorist recognition of the community. We support this effort. With the support of the District office we prepared a design to fabricate official informational signs for the community.

DEW:DRB:TRF:glencom

attachments

copies: D.E. Williams

L. Alt D.R. Bailey



# Montana Department of Transportation PO Box 201001 Helena, MT 59620-1001

#### Memorandum

To: Loran Frazier, P.E. – Chief Engineer

Highways and Engineering Division

From: Duane E. Williams, P.E. - Traffic and Safety Engineer

Date: March 17, 2005

Subject: US 89 – Livingston South

**Speed Limit Investigation** 

- □ In response to local residents Park County Commissioners requested a speed limit investigation for the purpose of extending the 55 mph speed limit on US 89 south approximately two miles. The area of concern is located between milepost 48 and milepost 50, approximately three miles south of Livingston.
- □ The majority of the study area was reconstructed in 1961 with some recent improvements in 1990. US 89 consists of two 12-foot travel lanes with 4-foot shoulders in each direction. The average annual daily traffic volume ranges from 3850 south of the intersection with Secondary 540 to 6720 north of the intersection with Secondary 540. The adjacent roadside culture along this segment is sparsely developed with both commercial and residential development. This development extends south of the intersection with Secondary 540 and the southern boundary of the existing 55 mph speed zone.
- □ There were 28 accidents reported within the study area. The accident rate is 1.13 accidents per million vehicle miles traveled. The statewide average is 1.30 accidents per million vehicle miles for rural National Highways. Two of accidents resulted in fatalities. There are no definable trends that directly point to the roadway features or the travel speeds as contributing to the accident experience.
- □ From the information gathered in our investigation we submitted Park County Commissioners an engineering report recommending a 1,500-foot extension in the 55 mph speed zone. County officials and local residents felt that 1,500 feet was an insufficient distance, as it did not encompass the intersection with Old Yellowstone Road. It also did not provide the desired buffer area in advance of the first stages of development south of Secondary 540.
- □ In order to move forward with a recommendation to the Montana Transportation Commission, staff from both the Butte District office and Headquarters met with the county and local residents on-site to discuss the issues as they saw them. From that meeting we prepared a second proposal for the county to review and comment on. Within that proposal the speed limit recommendation was extended south an additional 800 feet, oversized speed limit signs and intersection ahead warning signs for Old

Yellowstone Road were recommended. County officials reviewed the second proposal and concurred. Their comments as received on March 8<sup>th</sup> are attached.

□ A 55 mph speed limit beginning at station 1739+00, project FAP 13(6) (150' south of the intersection with Guthrie Lane) and continuing south to station 1579+00 (1,550 feet south of the intersection with Evergreen Lane, an approximate distance of 3.03 miles.

#### **Original Report Submitted to Park County**

In March 2004, Park County Commissioners submitted a request to extend the existing 55 mph speed limit on US 89 approximately two miles south of the intersection with East River Road. This request was prompted in that the southern boundary of the present 55 mph speed zone does not encompass the nearby residential development in the area. They also have concerns about the safety of residents and business patrons accessing US 89 from approaches that are located in areas with guardrail near milepost 48. Issues voiced at an informational meeting with county officials and concerned residents included excessive speed, unsafe passing maneuvers, narrow shoulders and the difficulty of identifying an approach located within a section of guardrail.

The majority of the study area was reconstructed under projects F 217(11) in 1965 and F 13(16) in 1961. There have been some more recent improvements under project F 11-1(18) in 1990 from milepost 49.0 to milepost 49.4. The typical section consists of two 12-foot travel lanes with two 4-foot shoulders.

The existing 55 mph speed limit was approved by the Montana Transportation Commission in 1968. It begins 400 feet north of the intersection with Guthrie Lane and continues south 2.6 miles to a milepost 49.7 south of the intersection with Secondary 540. The average annual daily traffic volume ranges from 3850 south of the intersection with Secondary 540 to 6720 north of the intersection with Secondary 540. The adjacent roadside culture along this 2.6-mile segment is sparsely developed with both commercial and residential development. This development extends south of the intersection with Secondary 540 and the southern boundary of the 55 mph speed zone. Just south of the intersection with Evergreen Lane the adjacent side culture changes to rural. The roadway alignment also becomes curvilinear for a short distance. The design speed for this curvilinear segment is 60 mph. There are warning signs in place the changes in the roadway's alignment. Upon leaving the semi-developed environment the actual roadway is located within a fill area that is approximately a mile in length. There is guardrail along both sides of the roadway through much of this segment.

There are openings in the guardrail for approaches to accommodate access needs along the roadway. One approach of particular concern serves a Bed & Breakfast / Guide Service, and is located along the east side of the roadway just north of milepost 48.0. During our informational meeting with Park County officials the owners/users of this approach reported that they experience conflicts with traffic on US 89. The conflicts reported included the unsafe situation of the thru moving traffic passing a left-turning vehicle accessing this approach. In conducting an on-site review of the area we identified that this approach is located in an area in which there is guardrail along both sides of the roadway. Because of the guardrail the approach is not readily visible. It is logical that motorists may have difficulty in recognizing it and the potential for conflict associated with the side approach.

#### **Accident History**

The accident experience was reviewed for three-year period from January 1, 2001 to December 31, 2003. During this period there were 28 accidents reported within the study area. The accident rate is 1.13 accidents per million vehicle miles traveled. This is below the statewide average of 1.30 accidents per million vehicle miles for rural National Highways. Two of accidents resulted in fatalities. One of which alcohol was listed as a contributing factor. The other involved a motorist that fell asleep. The following table lists the accident types by location.

	<u>Angle</u>	Rearend	Single Veh.	<u>Other</u>
Intersection	3	1	1	0
Non-intersection	1	2	19	1

The accident experience is distributed throughout the study area with no definite trends in accident location. There is a slight over representation in the proportion of angle accidents and single vehicle accidents. Of the 20 single vehicle accidents 11 of them involved conflicts with animals.

Ten of the 28 accidents occurred within the 3-mile segment south of the existing 55 mph speed zone. Of those ten accidents seven were single vehicle in type. Non-roadway factors were listed as a contributing factor in six of those accidents. The three remaining accidents consisted of two rearend accidents and one head-on accident. There are no definable trends that directly point to the roadway features or the travel speeds as contributing to the accident experience.

### **Travel Speeds**

Vehicular travel speeds were sampled at 11 locations to develop a speed profile beginning within the existing 45 mph speed zone and continuing south to approximate milepost 47.5. The following table lists the 85<sup>th</sup> percentile speeds and the pace of the traffic stream by location beginning near Livingston and continuing south.

<b>Location</b>	85 <sup>th</sup> percentile Speed	Pace of Traffic Stream & Percent
Near Travertine Ln. (45 mph zone)	Northbound Count Failed Southbound 46 mph	Corrupt File 34 mph – 44 mph (74%)
At Gutherie Ln. (55 mph zone)	Northbound 56 mph Southbound 54 mph	46 mph – 56 mph (63%) 43 mph – 53 mph (62%)
Near WineGlass Rd. (55 mph zone)	Northbound 58 mph Southbound 61 mph	49 mph – 59 mph (65%) 52 mph – 62 mph (60%)
Milepost 51.2 (55 mph zone)	Northbound 60 mph Southbound 63 mph	49 mph – 59 mph (68%) 52 mph – 62 mph (61%)

Milepost 50.6 (55 mph zone)	Northbound 59 mph Southbound 62 mph	49 mph – 59 mph (66%) 52 mph – 62 mph (60%)
Milepost 50.1 (55 mph zone)	Northbound 61 mph Southbound 61 mph	49 mph – 59 mph (63%) 52 mph – 62 mph (65%)
400' south of the 55 mph to 70 mph Transition	Northbound 67 mph Southbound 64 mph	55 mph – 65 mph (52%) 52 mph – 62 mph (61%)
Milepost 49.1 (70 mph zone)	Northbound 70 mph Southbound 68 mph	58 mph – 68 mph (52%) 55 mph – 65 mph (53%)
Milepost 48.5 (70 mph zone)	Northbound 73 mph Southbound 67 mph	61 mph – 71 mph (52%) 55 mph – 65 mph (56%)
Milepost 48.0 (70 mph zone)	Northbound 67 mph Southbound 76 mph	58 mph – 68 mph (62%) 64 mph – 74 mph (47%)
Milepost 47.5 (70 mph zone)	Northbound 74 mph Southbound 71 mph	64 mph – 74 mph (60%) 61 mph – 71 mph (56%)

The travel speeds define the study area into two distinct segments. South of the intersection with Evergreen Lane the 85<sup>th</sup> percentile speeds and the upper limit of the pace are consistently around 70 mph with typically over 50 percent of the traffic stream traveling within the pace. The actual range in the 85<sup>th</sup> percentile speeds was between 67 mph and 76 mph with the upper limit of the pace consistently at or very near the 85<sup>th</sup> percentile speed. The speed statistics indicate that the traffic stream is traveling at or below 70 mph in a uniform manner and the 70 mph speed limit is appropriate for the travel conditions.

North of Evergreen Lane and throughout the vast majority of the existing 55 mph speed zone the 85<sup>th</sup> percentile speeds and the upper limit of the pace hover around 60 mph. The 85<sup>th</sup> percentile speeds and the upper limit of the pace range between 58 mph and 63 mph with over 60 percent of the traffic stream traveling within the pace. There is some variation in the 85<sup>th</sup> percentile speeds at both the north and south extremities of this segment as the speeds are transitioning from one environment to another.

#### **Conclusions and Recommendations**

The travel speeds gathered in this investigation support that the ideal speed limit for the semi-developed area south of Livingston is 60 mph and that the remainder of the study area is operating in a manner consistent with the statutory 70 mph speed limit. They also identify that the present 55 mph speed zone does not encompass the entire area identified as having special operational characteristics. The change in traffic operation to a complete rural condition takes place south of the intersection with Evergreen Lane.

Based on the request submitted by local officials and the discussion at the informational meeting proposing a 60 mph speed limit in place of the existing 55 mph speed limit is not an option (as per state statute). With that in mind we propose that extending the 55 mph speed zone 1,500 feet south to encompass the remaining development as being the most logical speed limit option.

In terms of the length, this extension is a relatively minor adjustment. The length of the 55 mph speed zone will increase from 2.6 miles to 2.9 miles.

In support of the option to extend the 55 mph speed zone south, the recently adopted 2003 Manual on Uniform Traffic Control Devices (MUTCD) provides guidance that when a speed limit is to be posted it should be within 5 mph of the 85<sup>th</sup> percentile speed of free-flowing traffic. In comparing the 60 mph trend in the speed profile along the semi-developed area to the corresponding 55 mph speed limit, the 55 mph speed limit is in conformance with the manual. We recommend the following revised 55 mph speed limit for US 89.

A 55 mph speed limit beginning at station 1739+00, project FAP 13(6) (150' south of the intersection with Guthrie Lane) and continuing south to station 1587+00 (750' south of the intersection with Evergreen Lane), an approximate distance of 2.88 miles.

The present 45 mph to 55 mph speed limit transition is located at approximate station 1743+00, 400 feet north of the intersection with Guthrie Lane. It should be relocated to the south at station 1739+00, approximately 150 feet south of the intersection with Guthrie Lane to reflect the actual approved boundary of the 45 mph speed zone.

For the remainder of the study area we see no true value or benefit in reducing the statutory 70 mph speed limit. Both the travel speeds and the environment support this conclusion. The accident experience also indicates that this roadway has a good safety record in terms of accident frequency. As for the conflicts reported at the private approach near milepost 48 we believe the landowners concerns are valid and suggest the installation of Intersection Warning signs (W2-2). Intersection Warning signs are typically reserved for intersections with public roads. However, in this case it is our opinion that since the approach is located within a guardrail segment it is not readily visible to motorists. Furthermore, this approach serves a business and there are multiple users (i.e. landowners, employees and guests) and the activity not typically associated with a private approach leading to only a single residence.

DEW:DRB:TRF:p11livingsouthrpt

attachments

copies: D.E. Williams

L. Alt D.R. Bailey



# Montana Department of Transportation PO Box 201001 Helena, MT 59620-1001

#### Memorandum

To: Loran Frazier, P.E. – Chief Engineer

Highways and Engineering Division

From: Duane E. Williams, P.E. - Traffic and Safety Engineer

Date: March 16, 2005

Subject: MT 84 – Four Corners West

**Speed Limit Investigation** 

- □ With the reconstruction of MT 84, Four Corners West and the continued increase in both commercial and residential development west of Four Corners, Gallatin County Commissioners requested a speed limit investigation. County officials have received numerous complaints that the statutory speed limit is too high for the changes that have taken place. This investigation began at the signalized intersection of MT 84 and US 191 and continued west 1.4 miles.
- □ This portion of MT 84 was reconstructed in 2002 under project STPP 84-4(9). The project's design speed is 60 mph. For approximately the first mile beginning at the intersection with US 191 the typical section consists of two 12-foot travel lanes and 8-foot shoulders in each direction separated by a 14-foot two-way-left-turn lane. Approaching the Gallatin River Bridge the roadway narrows to a 40-foot wide two-lane facility. The adjacent side culture is made up of both scattered commercial and residential development. There is also a pedestrian path located along the south side of the roadway.
- There has not been a sufficient time period since reconstruction for this roadway to develop an accident history in which to report a safety record.
- □ The results of our investigation support local desires for a reduction in the statutory 70 mph speed limit. Based on the travel speeds associated with the adjacent environment and the transitional characteristics in the speed profile approaching Four Corners we recommend the following 45 mph − 60 mph speed limit configuration for MT 84. The following recommendations were presented to Gallatin County officials for review and comment. Gallatin County concurs with the proposed recommendations. Their comments are attached.
- □ A 45 mph speed limit beginning at Four Corners the intersection of MT 84 with US 191 and continuing west to (metric) station 146+20, project STPP 84-4(9), an approximate distance of 1,100 feet.

□ A 60 mph speed limit beginning at (metric) station 146+20, project STPP 84-4(9) and continuing west to (metric) station 127+40, project STPP 84-4(9), an approximate distance of 6,200 feet.

### **Reported Submitted to Gallatin County**

In response to concerned citizens Gallatin County Commissioners requested a speed limit investigation on MT 84, Four Corners west. With the exception of a 600-foot segment at Four Corners this portion of MT 84 was reconstructed in 2002 under project STPP 84-4(9). The project design speed is 60 mph. Traffic operation at the intersection with US 191 (Four Corners) is under traffic signal control.

The study area is made up of two distinct typical sections. From Four Corners west approximately one mile to a location near the Gallatin River Bridge the typical section consists of two 12-foot travel lanes and 8-foot shoulders in each direction separated by a 14-foot two-way-left-turn lane. In addition to the two-way-left-turn lane this segment is different from most rural highways is that there is also a pedestrian path located along the south side of the roadway. As the roadway continues west and approaches the Gallatin River Bridge the typical section narrows to 40 feet in width consisting of two 12-foot travel lanes with 8-foot shoulders in each direction. The terrain is flat to rolling with horizontal curves on both sides of the Gallatin River and one horizontal curve located between the river and Four Corners.

The adjacent side culture consists of both scattered residential and commercial development along the roadway. The residential development consists of both single-family units and multifamily apartment complexes. West of the Gallatin River Bridge the residential development is more dispersed and sets back further from the roadway. There is a golf course located adjacent to the north side of the roadway just west of the Gallatin River Bridge. There are numerous intersections with local roads that serve additional development in the surrounding area.

#### **Accident History**

There has not been a sufficient time period since this roadway was reconstructed to develop an accident history in which to report on.

#### **Travel Speeds**

Vehicular travel speeds were sampled at five locations to develop a speed profile on MT 84. The following table lists the 85<sup>th</sup> percentile speeds and the pace of the traffic stream in relationship to changes in the roadway typical section and adjacent side culture.

<b>Location</b>	85 <sup>th</sup> percentile Speed	Pace of Traffic Stream & Percent
700' West of Four Corners	Eastbound 46 mph Westbound 47 mph	35 mph – 45 mph (59%) 35 mph – 45 mph (55%)
Near the intersection With Timberline Dr.	Eastbound 58 mph Westbound 57 mph	47 mph – 57 mph (49%) 44 mph – 54 mph (52%)

Near the intersection With Old Milwaukee Rd.	Eastbound 61 mph Westbound 61 mph	49 mph – 59 mph (53%) 49 mph – 59 mph (54%)
Milepost 28 Just East of The Gallatin River. Br.	Eastbound 59 mph Westbound 64 mph	46 mph – 56 mph (49%) 52 mph – 62 mph (50%)
Milepost 27.6	Eastbound 70 mph Westbound 68 mph	58 mph – 68 mph (50%) 58 mph – 68 mph (51%)

As evidenced by the spot speed samples there is a definite difference in the travel speeds identified east of the Gallatin River Bridge from those identified west of the bridge. Along the majority of this segment the 85<sup>th</sup> percentile speeds and the upper limit of the pace are near 60 mph with a further reduction in the travel speeds at the extreme east end of the study area near the intersection with US 191. West of the Gallatin River Bridge beyond the horizontal curves and the intersection with River Road the 85<sup>th</sup> percentile speeds and the pace of the traffic stream are consistent with the statutory 70 mph speed limit.

### **Conclusions and Recommendations**

The results of this investigation support the need to establish a special speed limit configuration on MT 84 approaching the intersection with US 191 also known as Four Corners. Both the adjacent roadside environment and the operation of traffic east of the Gallatin River Bridge support this conclusion. The travel speeds and the roadway and roadside characteristics in relationship to one another identify the Gallatin River Bridge as being a natural and logical place to begin a special speed limit. However, it is our conclusion that it would be beneficial to carry the speed limit configuration further west through the horizontal curve and past the vegetation along the river to a location that is more open and rural in appearance. This is where the change in roadway operation as related to travel speeds begins.

The entire segment of roadway identified in the previous paragraph as having special operational characteristics is 7,300 feet in length. The 85<sup>th</sup> percentile speed profile along the vast majority of this segment is relatively flat with the travel speeds gradually increasing from east to west. For a short distance at the beginning of this segment there is an abrupt change in the speed profile or otherwise identified as a transitional area located between the intersection with Timberline Drive and Four Corners.

West of Timberline Drive the 85<sup>th</sup> percentile speeds and the pace of the traffic stream clearly support that a 60 mph speed limit would be appropriate for traffic operation. In arriving at this conclusion we took into account the actual speed statistics and also their orientation within the study area. This segment accounts for approximately 80 percent of the study area and excludes the transitional area between Timberline Drive and Four Corners. At a central location in the transitional area between Timberline Drive and Four Corners the speed statistics lend support for a 45 mph speed limit. It is our conclusion that the change in operation associated with the intersection with US 191 and the level of commercial development at the Four Corners intersection justifies the need for a second reduction in the speed limit. Based on the results of this investigation we recommend the following 45 mph – 60 mph speed limit configuration for MT 84.

A 45 mph speed limit beginning at Four Corners the intersection of MT 84 with US 191 and continuing west to (metric) station 146+20, project STPP 84-4(9), an approximate distance of 1,100 feet.

A 60 mph speed limit beginning at (metric) station 146+20, project STPP 84-4(9) and continuing west to (metric) station 127+40, project STPP 84-4(9), an approximate distance of 6,200 feet.

DEW:DRB:TRF:p84rpt

attachments

copies: D.E. Williams

L. Alt D.R. Bailey

Staff person handling: Loran Frazier, P.E., Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Access control resolution

STPS 235-1(13)0, 4470-013-000 *Junction MT 85 East* (Gallatin County)

# **Purpose**

MDT is moving forward on the final design and the acquisition of right-of-way for this project. Part of this process involves access management discussions, and what degree of access will be allowed on East Valley Center Road. Limited access is proposed to improve the safety and through mobility of this section of roadway.

Before moving forward with individual landowner negotiations, it is necessary to bring this concept before the Transportation Commission for your approval.

#### **Background**

SCOPE OF WORK OF PROJECT – Reconstruct Montana Secondary Highway 235, East Valley Center Road, along its current alignment from the junction with Montana 85 to the I-90 underpass road. The reconstruction will include a two-lane roadway with shoulders, flattening of vertical curves to improve sight distance, the addition of turn lanes at major intersections, the replacement of culverts and bridges, curb and gutter along a portion of the roadway, and a bike/pedestrian path along the south side of the roadway. A new bridge will be constructed over Hyalite Creek (Middle Creek). Project elements include roadway design, right-of-way acquisition and access control, drainage facilities, utility adjustments, signing and pavement markings, and lighting.

LOCATION OF PROJECT – In Gallatin County, between Belgrade and Bozeman. The roadway improvements will be along a 4.5 mile corridor of Montana Secondary 235 beginning at reference point 0.0 at its junction with MT 85 and runs easterly ending at reference point 4.5 at the junction with the I-90 underpass road and connecting with project STPS 235-1(65) that was completed in 1995.

SAFETY ANALYSIS/JUSTIFICATION – 50% of the recorded crashes between reference point 0.0 and 3.2 were coded as overturning. 65% of the recorded crashes between reference point 3.2 and 4.2 were coded as intersection of intersection-related. In general terms, in the first 3 miles of the project, the accident trend is single vehicle, off-road overturning crashes. In the last mile, the accident trend is multiple vehicle collisions involving a turning movement.

The proposed improvements will significantly reduce crash rates by providing additional turning lanes at major intersections; wider shoulders and flatter in-slopes with recovery areas

and clear zones; lighting at major intersections; and improved sight distance through improved vertical alignment.

ACCESS MANAGEMENT APPROACH – Access management is a response to the problems of congestion, capacity loss, and accidents. It sets forth guidelines for managing access points and spacing along a highway, adding turn lanes, incorporating turning restrictions, consolidating accesses, and implementing traffic control measures. The goal of access management is to improve the safety, function, and operation of the roadway.

The following goals and basic strategies are used in implementing limited access control for this project:

- 1) Limit the number of conflict points
- 2) Separate conflict points
- 3) Remove turning vehicles from through traffic lanes
- 4) Reduce conflicting volumes
- 5) Improve roadway/driveway operations and safety

PUBLIC INVOLVEMENT – A public open house and scoping meeting was held at the Wingate Inn in Bozeman on June 19, 2001. Another formal public hearing and open house were held at the Wingate Inn on March 5, 2003. Individual meetings with most abutting landowners were also held on March 4 and 5, 2003 and individual landowners have been able to approach MDT and the Consultant regarding their individual access concerns. This is and on-going process that will continue through R/W negotiations.

NEPA ENVIRONMENTAL DOCUMENTATION – An Environmental Assessment was prepared for this project and was approved by the Federal Highway Administration on January 27, 2003.

DISTRICT POSITION – The Butte District is in support of limited access for this project.

CITY/COUNTY POSITION – Gallatin County has taken a position of support. Exhibit II is a letter from the Gallatin County Commissioners that states "The Gallatin County Commission supports the proposal to designate Valley Center Drive as a controlled access facility. We realize this action is important to preserve the integrity and safety of the road over the long term."

OPPOSITION TO PROJECT – There is minimal public opposition to the access control. Most opposition focused mainly on the on the desire to keep access points exactly as they currently exist. While this is not possible, each landowner will retain reasonable access to East Valley Center Road. Some access points will be eliminated.

#### **EXHIBITS**

Exhibit I: An overall map of the area, showing the project limits.

Exhibit II: A letter from the Gallatin County Commission in support of the access

control policy.

#### Staff recommendation

Staff recommends approval of the access control resolution.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: Relocating utilities in preparation for developer-financed realignment of Custer Avenue/Washington St intersection (Helena)

#### Background

The intersection of Custer Avenue (U-5802) and Washington Street (U-5807) in Helena is located in a rapidly growing commercial area that will eventually be served by the planned Custer I-90 Interchange. At the present time, this intersection needs to be realigned to better handle the traffic related to commuter trips and access to the businesses currently located or moving into this area. The department has agreements in place relative to cost sharing with the developers for the realignment of the intersection. These agreements include MDT cost responsibility for movement of the overhead utilities while the remainder of the costs will be the responsibility of the developers.

In anticipation of the intersection improvements, the department is now proposing to move the power lines. The specific power line is located along Custer Avenue (U-5802) between I-15 and Washington Street (U-5807). The proposal is to remove the existing power line and move it to the North approximately a quarter of a mile, which places it outside the limits of any future improvements to Custer Avenue. All other utilities that are underground within the limits of existing right-of-way will remain in place. The cost to relocate the existing power lines is estimated not to exceed \$300,000. The Great Falls district has opted to utilize their National Highway (NH) funding to accomplish the relocation of the overhead power lines. This project is eligible for funding with NH funds because the work to be undertaken is within the limits of the Interstate 15 Corridor Environmental Impact Statement and Record of Decision.

Formal agreements with the City of Helena and the developers (Skyway Mall and Town Pump) will be in place for the total intersection realignment before these funds are expended. A future action will be brought to the commission for the construction phase of this project.

### Summary

\$300,000 is needed to pay for MDT responsibilities towards realigning the Custer and Washington intersection in Helena. These funds will be used to relocate overhead power lines, while the remaining costs for the intersection will be the responsibility of the developers. The local government plans to contribute land for the utility relocation. No project currently within the program will be impacted by this project.

#### Staff recommendations

Staff recommends commission approve the project to relocate the overhead power line on Custer Avenue in Helena at the cost of \$300,000 contingent on a future multiparty agreement that limits MDT cost responsibility to this amount for the realignment of the Custer Avenue/Washington Street intersection.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: Enhancement projects on MDT right-of-way

### Background

The Transportation Commission approves Community Transportation Enhancement Program (CTEP) projects that are located on or adjacent to state designated streets and roads. The following CTEP projects are funded with the enhancement set-aside of the Surface Transportation Program that is allocated by population to Montana local and tribal governments. The communities select projects for funding with their allocations and provide required non-federal match. The program is based on an agreement between MDT and Montana local and tribal governments.

Projects proposed for programming are shown below:

#### 1. City of Laurel project in Laurel

**Park Sidewalks - Laurel** – This enhancement project will design and construct sidewalks at nine locations in Laurel described below for an estimated project cost of \$385,495.

- Remove and replace 325 linear feet (LF) of sidewalk and curb and gutter on the north side of East 8th St starting at Alder Ave and going east.
- Install 272 LF of sidewalk on the east side of Alder Ave starting at East 8th St going north
- Remove and replace 765 LF of sidewalk on the south side of East 8<sup>th</sup> St starting at 1<sup>st</sup> Ave (U-6901) going east.
- Remove and replace 1450 LF of curb and gutter on the north side of East 6<sup>th</sup> St starting at 1<sup>st</sup> Ave going east.
- Install 2750 LF of sidewalks on both sides of 1st St from 1st Ave to Wyoming Ave.
- Install sidewalks on both sides of Montana Ave, Colorado Ave, Pennsylvania Ave and Wyoming Ave from 1st St to Main St (U-6904).

With the addition of the Park Sidewalks-Laurel project the City of Laurel will have obligated \$395,525 of the \$403,583 made available from CTEP.

#### 2. Missoula County project near Seeley Lake

**Boy Scout Rd Path - Seeley Lake –** This enhancement project will design and construct a ten-foot wide shared use path approximately .75 miles in length. The project is located on the north side of the Boy Scout Road between MT 83 (P-83) and C Street in Seeley Lake. Estimated project cost is \$60,000.

#### 3. Missoula County project near Seeley Lake

**Riverview Rd Path - Seeley Lake** – This enhancement project will design and construct an eight-foot wide shared use path approximately .75 miles in length. The project is located on the north side of Riverview Drive between MT 83 (P-83) and the Clearwater River. Estimated project cost is \$172,500.

With the addition of the Boy Scout Rd Path-Seeley Lake and the Riverview Rd Path-Seeley Lake projects Missoula County will have obligated \$2,583,888 of the \$2,529,991 made available from CTEP. This is not an overrun of funds. Missoula County has agreed to delay programming the Riverview Rd Path – Seeley Lake project until the fall, at which time they will have received another CTEP allocation.

### 4. City of Billings project in Billings

**Jackson St Sidewalks II - BLGS** – This enhancement project is for the design and construction of sidewalks, curb and gutter, drive approaches and accessibility ramps. The project is located on both sides of Jackson Street (U-1019) between Kratz Lane and State Avenue (U-1024). Estimated project cost is \$145,000.

With the addition of the Jackson St Sidewalks II-BLGS project the City of Billings will have obligated \$4,797,712 of the \$5,768,459 made available from CTEP.

### Summary

All work will be in accordance with current design standards and ADA requirements.

#### Staff recommendations

Staff recommends the commission approve the addition of these projects to the program.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: Railroad crossing improvements – 27th Street in Billings

### Background

Montana Rail Link (MRL) has requested the Montana Department of Transportation upgrade the crossing surface on 27th Street (N-53) in Billings. The improvement will be funded with National Highway Program funds (NH). The existing rubberized surface is in poor condition. Under this proposal MDT would replace the existing crossing surface with new concrete. The site is located in Billings on 27th Street, between Montana Ave and Minnesota Ave. The estimated project cost is \$68,800 to MDT for materials only; MRL will contribute the labor to construct the site as consistent with MDT policy.

#### Summary

MDT has the opportunity to partner with MRL in improving the above railroad-crossing surface. MDT would pay for the materials and MRL would be responsible for construction. No project within the National Highway Program will be impacted because of this expenditure.

#### Staff recommendations

Staff recommends the commission approve the addition of this project to the program.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: FFY 2005 congressional earmarks on MDT right-of-way

### **Background**

Attached are seven projects that have received congressional earmark funding for federal fiscal year 2005. These projects are located on MDT right-of-way and require commission approval. Montana will receive funds from the following FHWA Discretionary Programs:

FBD Ferry Boat Discretionary

PLHD Public Lands Highway Discretionary STP Surface Transportation Project (Sec 117)

B&C Borders & Corridors

ITS Intelligent Transportation System

### **Summary**

# B&C \$3 million US 93 Kalispell Bypass

The intent of this earmark is to aid in the purchase of right-of-way for the Kalispell bypass project. The Kalispell Bypass project will provide an alternative route around Kalispell for commercial vehicles while also mitigating current traffic congestion issues in the Kalispell urban area. The proposed bypass begins south of Kalispell at RP 108.75 on US 93 and travels on a new alignment in a northwesterly direction, west of Kalispell, tying back into US 93 at RP 115.85.

MDT will administer this project.

# STP \$3 million S-323 Ekalaka - Alzada

This earmark will fund the paving of the recently reconstructed portion of Secondary 323 from RP 36.826 – 52.0 south of Ekalaka. This project is consistent with the overall corridor development plan for this 46.9-mile rural corridor. Currently, Secondary 323 does not have an all-weather surface and it is impassable under certain weather conditions. The corridor will require future investment to complete the reconstruction.

MDT will administer this project.

# STP \$5 million Billings Bypass Development

The intent of this earmark is to provide funding towards completing of the environmental review, and initiating detailed design, and right-of-way acquisition for the proposed by-pass connecting the I-90/94 interchange area east of Billings with MT Highway 3 northwest of Billings. This project will improve safety in Billings by providing a truck route for heavy

truck traffic and traffic with hazardous cargo; reducing congestion along a number of Billings arterial streets and improving air quality in the city by reducing stopping and idling times for traffic.

MDT will administer this project.

FBD	\$1,500,000	Claggett Hill/L & C Ferry Boat Facilities
STP	\$2,200,000	Claggett Hill/L & C Ferry Boat Facilities

Based on concurrence from the Chouteau, Fergus and Blaine County Commissioners, all of the funds from these earmarks will be directed toward the Claggett Hill project. The proposed scope of work for this project is to realign a portion of Secondary 236. The project begins approximately 16 miles north of Winifred and extends northerly for about 3.75 miles to just south of the Missouri River Bridge. The design is complete and necessary right-of-way has been acquired. Fergus County has agreed to obtain an appropriate easement and construct approximately 2300 feet of connecting roadway before this project is completed. Funds will be used to construct the project.

MDT will administer this project.

# STP \$500,000 US-87 Roadway Improvements

The intent of this earmark is to provide for improvements to a segment of US Highway 87. The improvements would address and enhance access and roadway needs for a proposed value-added agricultural business park in north Great Falls. The proposed scope of improvements is to reconstruct a 3,700-foot segment of the 2-lane roadway and widen it to four lanes. Intersection deceleration and acceleration lanes are also included.

MDT will administer this project.

# ITS \$1 million RR Xing – Ledger East

The intent of this earmark is to provide for a rail crossing advance warning. The project is located on Montana Secondary 366 at reference post 5.3 at Ledger. The project will provide advance warning of the status of an at-grade rail crossing located at the base of a long grade. The project will alleviate a truck/train safety issue by providing advance warning to the truck drivers that they may have to stop at the bottom of the grade if the crossing is occupied. Other locations, to be determined, are also fundable from this earmark. Additional projects will be brought to the commission for their approval once available funding is determined.

Administrative oversight on this project is yet to be determined. The Western Transportation Institute from MSU – Bozeman, may participate in implementing this project.

This earmark will provide funding toward an existing project. The City of Whitefish has chosen to apply the STP earmarked funds to the existing CTEP funded Bike/Ped Path-Whitefish project. This project will design and construct pedestrian and bicycle facilities along Wisconsin Avenue and a portion of East Lakeshore Drive in the north section of the community. The proposed pedestrian and bicyclist facilities would be approximately 2.0 miles in length and would include a separated 8-food wide shared use path along the east side of Wisconsin Avenue and East Lakeshore Drive (U-12001) from Edgewood Place to north city limits at Houston Point.

Administrative oversight on this project is yet to be determined. Because local governments administer CTEP projects with MDT concurrence at key points, this earmark may be administered as if it were CTEP to simplify fiscal management.

#### Staff recommendations

Staff recommends the commission approve these projects.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: FFY 2005 congressional earmarks off MDT right-of-way

#### **Background**

Attached are six projects that have received congressional earmark funding for federal fiscal year 2005. These projects are not located on MDT right-of-way and are presented as informational items only; no commission action is needed. Montana will receive funds from the following FHWA Discretionary Programs:

PLHD Public Lands Highway Discretionary
STP Surface Transportation Project (Sec 117)
TRANSIT

State revenue will not be used to match any of these projects.

### **Summary**

PLHD \$5 million Fort Peck Reservoir Fishing Access Roads

The project includes the crushing and stockpiling of gravel to be used by the surrounding counties to improve the safety and drivability of roads providing access to the Fort Peck Reservoir and CM Russell National Wildlife Refuge. The soils in this area have high concentrations of silt clays that cause difficult traveling conditions when roads are wet. By adding gravel to the surface, the project will provide all-weather roads to these areas.

FHWA's Western Federal Lands Highway Division will administer this project in coordination with the counties surrounding the Fort Peck Reservoir. None of the access roads are on commission-designated roads.

# PLHD \$5 million Glacier NP, Going-to-the-Sun Road

This earmark will provide funding for the Going-to-the-Sun Road rehabilitation project. The total cost of the 50-mile long project is estimated at between \$140-170 million. Funds will be used for the following types of work: preliminary design, design engineering, survey information, rock fall hazard mitigation, repointing of masonry walls, drainage and structural repairs on the Logan Pass area, East and West Tunnel stone masonry, and stone sourcing.

FHWA's Western Federal Lands Highway Division will administer this project.

### PLHD \$3 million Marysville Road

This project is located 20 miles northwest of Helena in Lewis and Clark County. It begins at the intersection of Secondary Route 279 (Lincoln Highway) and extends approximately 6.7 miles westerly towards the Great Divide Ski Area on an off-system, local route known as the Marysville Road (L-25-90 in our system). The purpose and intent of this grant is to perform preliminary design and secure an appropriate environmental document and associated permits. If additional funds remain, these funds will be used for acquiring right-of-way, relocating utilities and construction. At this stage of project development, it is anticipated that this earmark will result in construction of a segment of the 6.7-mile corridor.

The drainage adjacent to this road is considered contaminated from historic mining activities. The Department of Environmental Quality recently awarded a \$700,000 contract to Camp, Dresser, and McKee for a preliminary investigation. Their analysis will determine the scope and extent of the environmental clean-up. It is estimated that the cost to remediate the historical mining impacts in this region is between \$20 and \$25 million. The roadway project is being coordinated with this other work, but highway funds are not intended for the drainage remediation.

Administrative authority for this project is yet to be determined.

# STP \$400,000 West Fork/Ski Run Road

This project is located just south of Red Lodge and proceeds west approximately 6.2 miles to Red Lodge Mountain Ski Area on off-system, local routes known as the West Fork Road (L-5-8) and Ski Run Road (L-5-9). The purpose and intent of this grant is to perform preliminary design and secure an appropriate environmental document and associated permits.

Administrative authority for this project is yet to be determined.

# TRANSIT \$2.5 million Billings Bus/Med Facility

The intent of this earmark is to provide funding to construct a public bus and medical transfer facility.

Administrative authority for this project is yet to be determined.

# TRANSIT \$2 million Billings Downtown Bus Facility

This project will consolidate the Billings Downtown Transfer Center. The current 3½-block configuration presents some challenges, operationally and with customer service. The construction of an enclosed, heated consolidated transfer point would greatly enhance the city's ability to better serve their customers, as well as allow for more efficiency in timing of routes and schedules. This earmark will allow the City of Billings to continue the process of purchasing an appropriate site and the beginning of final design and construction of this needed facility.

MET Transit of Billings will manage this project with oversight by the Federal Transit Administration.

# Staff recommendations

These projects were presented for information only and require no commission action.

Notes/discussion

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: Federal Transit Administration Section 5311 Capital Assistance Program

### Background

The goals of the Federal Transit Administration's Section 5311 Program are to enhance the access of residents outside of urbanized areas with more than 50,000 in population (Billings, Great Falls, Missoula) to health care, shopping, education, employment, public services and recreation; assist in the maintenance, development, improvement, and use of public transportation systems; and encourage the most efficient use of federal funds through the coordination of programs and services. In 2004, Montana's nine Section 5311 providers provided over 375,000 rides. Funding for Section 5311 capital assistance is 80 percent federal and 20 percent local. There are no state funds involved in the non-federal match of these funds.

In addition to Section 5311 capital and operating assistance, MDT also supports Montana's Section 5311 providers with FTA Section 5313 planning funds and FTA Section 5311(b) Rural Transit Assistance Program (RTAP) funds. The providers use planning funds to develop federally required transit development plans and MDT provides RTAP funding for education and training of provider staff.

Each year, MDT's Transit Section requests applications from eligible Section 5311 transit providers, conducts regional application training workshops, and assists applicants in developing applications. MDT staff then works with representatives from the Governor's Office of Indian Affairs and various offices within the Department of Public Health and Human Services representing services to the aging, developmentally disabled, vocational rehabilitation clients, and Medicaid/Medicare recipients to review applications and develop the recommended list of capital expenditures. This year, customers representing the elderly, disabled, and low-income groups also participated in the application review and recommendation process.

## Selection process

Considering the commission has three new members, staff is providing additional information about the selection process for recipients of Section 5311 capital assistance. Attached are several documents that describe this process which is consistent with federal requirements and the federally-mandated State (Transit) Management Plan.

#### Attachment A

Recommended FY 2006 Section 5311 Capital Assistance Program funding distributions.

The recommendations shown are the result of a review by a 10-member State Selection and

Screening Committee<sup>1</sup>. This attachment also shows projects not prioritized for funding this year.

Attachment B

General timeline for the annual Section 5311 grant application and selection process. This process takes approximately nine months to complete.

Attachment C

Criteria used in review of Section 5311 applications.

Attachment D

Overall funding distribution for all MDT-administered transit programs.

#### Staff recommendations

Staff recommends the commission approve the Section 5311 capital assistance expenditures as shown in attachment A, in accordance with the authority provided by MCA 60-2-110.

Notes/discussion

<sup>&</sup>lt;sup>1</sup> The State Selection and Screening Committee includes representatives from the Governor's Office of Indian Affairs, Department of Public Health and Human Services (aging services, developmentally disabled, vocational rehabilitation, and Medicaid/Medicare), and a non-participating transit service provider (Great Falls Transit was chosen this year). Beginning this year, customers representing elderly, disabled, and low-income groups were asked to participate in the application review and recommendation process, bringing the total number of members to 10.

# FY2006 Capital Assistance Recommended projects

Funding Source: Federal Transit Administration (FTA)

Section 5311

Recipient Project Description		Federal Share	Local Share	Total
Fergus County COA	One 7-passenger mini-van	\$20,800	\$5,200	\$26,000
Lewistown				
Helena Area Transit Service, Helena	One 16-passenger diesel bus with wheelchair lift & radio	\$51,200	\$12,800	\$64,000
Helena Area Transit Service, Helena	Bike racks	\$1,600	\$400	\$2000
Valley County Transit Glasgow	Computer equipment	\$2,000	\$500	\$2,500
Valley County Transit Glasgow	Vehicle rehabilitation	\$7,600	<b>\$1,9</b> 00	\$9,500
Flathead Area IX Agency on Aging, Kalispell	Two 16-passenger diesel buses with wheelchair lifts	\$91,200	\$22,800	\$114,000
Flathead Area IX Agency on Aging, Kalispell	Two 25-passenger diesel buses with wheelchair lifts	\$97,600	\$24,400	\$122,000
Flathead Area IX Agency on Aging, Kalispell	Driver's lockers	\$720	\$180	\$900
Fort Peck Transportation, Poplar	Renovate bus barn with new doors	\$53,902	\$13,475	\$67,378
	Total	\$326,622	\$81,655	\$408,278

All amounts are estimates.

The following project fell below the available funding level.

Recipient	Project Description	Federal Share	Local Share	Total
Fort Peck Transportation Poplar	Renovate facility – extend exterior bus storage area	\$100,000	\$25,000	\$125,000
	Total	\$100,000	\$25,000	\$125,000

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: Transit Section 5310 Capital Assistance Program

### Background

The Federal Transit Administration's Section 5310 Program provides capital assistance to agencies that provide transportation to elderly persons and persons with disabilities. In 2004, these agencies provided approximately one million rides to these transit-dependent Montanans. Funding for this program is 80 percent federal and 20 percent local. There are no state funds involved in the non-federal match.

Each year, MDT's Transit Section requests applications from eligible transit providers, conducts regional application training workshops, and assists applicants in developing applications. MDT staff then works with representatives from the Governor's Office of Indian Affairs and various offices within the Department of Public Health and Human Services representing services to the aging, developmentally disabled, vocational rehabilitation clients, and Medicaid/Medicare recipients to review applications and develop the recommended list of capital expenditures. This year, customers representing the elderly, disabled, and low-income groups also participated in the application review and recommendation process as consumer representatives.

## Selection process

Considering the commission has three new members, staff is providing additional information about the selection process for recipients of Section 5310 capital assistance. Attached are several documents that describe this process, which is consistent with federal requirements and the federally-mandated State (Transit) Management Plan.

### Attachment A

Recommended FY 2006 Section 5310 Capital Assistance Program funding distributions. The recommendations shown are the result of a review by a 10-member State Selection and Screening Committee<sup>2</sup>.

### Attachment B

Proposed projects that ranked below the available funding level.

### Attachment C

General timeline for the annual Section 5310 grant application and selection process. This process takes ten months to complete.

<sup>&</sup>lt;sup>2</sup> The State Selection and Screening Committee includes representatives from the Governor's Office of Indian Affairs, Department of Public Health and Human Services (aging services, developmentally disabled, vocational rehabilitation, and Medicaid/Medicare), and a non-participating transit service provider (Great Falls Transit was chosen this year). Beginning this year, customers representing the elderly, disabled, and low-income groups were asked to participate in the application review and recommendation process, bringing the total number of members to 10.

### Attachment D

State selection and screening process used to score Section 5310 applications. Scores that address needs of providers are developed by the State Selection and Screening Committee and combined with scores by MDT staff that address technical program oversight requirements. The final combined score is used in developing the list (Attachment A) presented to the Transportation Commission.

Note: The Federal Transit Administration conducts regular management reviews of MDT federal transit program management processes as documented in the State (Transit) Management Plan. The most recent FTA management review, which occurred in 2003, concluded that MDT's processes were exemplary and have been used as models for other state DOTs.

### Staff recommendations

Staff recommends the Transportation Commission approve the Section 5310 capital assistance expenditures as shown in attachment A in accordance with the authority provided by MCA 60-2-110. Staff also recommends that, should additional Section 5310 funding become available, expenditure of the additional funds will be directed towards the projects shown on attachment B.

Notes/discussion

# FY2006 Capital Assistance

# Recommended Projects

Funding Source: Federal Transit Administration (FTA)

Section 5310

Recipient	Project Description	Federal Share	Local Share	Total
Richland Opportunities, Inc. Sidney (partial)	One 12-passenger bus with wheelchair lift	\$22,400	\$5,600	\$28,000
Plains/Paradise Senior Citizens Plains	One 12-passenger bus with wheelchair lift	\$40,400	\$10,100	\$50,500
COR Enterprises, Inc. Billings	One 10-passenger bus with wheelchair lift	\$34,400	\$8,600	\$43,000
Dahl Memorial Healthcare Ekalaka	One 12-passenger bus with wheelchair lift	\$40,400	\$10,100	\$50,500
MET Transit Billings	One 12-passenger bus with wheelchair lift	\$44,000	\$11,000	\$55,000
HRDC/Galavan Bozeman	One 12-passenger bus with wheelchair lift & radio	\$43,600	\$10,900	\$54,500
Mission Mountain Enterprises Ronan	One mini-van conversion with ramp	\$32,800	\$8,200	\$41,000
Reach, Inc. Bozeman	One 10-passenger bus with wheelchair lift	\$34,400	\$8,600	\$43,000
Little Bitterroot Services, Inc. Plains	One 12-passenger bus with wheelchair lift	\$40,400	\$10,100	\$50,500
Opportunity Resources, Inc. Missoula	One 12-passenger bus with wheelchair lift	\$40,400	\$10,100	\$50,500
	Total	\$373,200	\$93,300	\$466,500

# FY2006 Capital Assistance

The following proposed projects fell below the available funding level. Should additional Section 5310 funding become available, we recommend directing any additional funds towards these projects in the priority shown.

Funding Source: Federal Transit Administration (FTA) Section 5310

Recipient	Project Description	Federal Share	Local Share	Total
MET Transit	Three 12-passenger buses	\$132,000	\$33,000	\$165,000
Billings	with wheelchair lifts			
HRDC/Galavan	One 12-passenger bus with	\$40,400	\$10,100	\$50,500
Bozeman	wheelchair lift			
Mission Mountain Enterprises	One 7-passenger mini van	\$20,800	\$5,200	\$26,000
Ronan				
Golden Triangle Community	One 12-passenger bus with	\$40,400	\$10,100	\$50,500
Mental Health, Great Falls	wheelchair lift			
Big Horn Hospital Association	One Mini van conversion	\$32,800	\$8,200	\$41,000
Hardin	with ramp			
Reach, Inc.	One 7-passenger mini van	\$20,800	<b>\$5,2</b> 00	\$26,000
Bozeman				
Quality Life Concepts	One 7-passenger mini van	\$20,800	\$5,200	\$26,000
Great Falls				
Quality Life Concepts	One 12-passenger bus with	\$40,400	\$10,100	\$50,500
Great Falls	wheelchair lift			
AWARE, Inc.	Four 7-passenger mini	\$83,200	\$20,800	\$104,000
Anaconda	vans			
AWARE, Inc., Anaconda	Radio Equipment	\$16,800	\$4,200	\$21,000
Liberty County COA	Computer system with	\$2,400	\$600	\$3,000
Chester	printer			
Eagle Watch Mobility, Inc.	One Mini-van conversion	\$32,800	\$8,200	\$41,000
Missoula	with ramp			
Golden Triangle Community Mental Health, Great Falls	One 7-passenger mini van	\$20,800	\$5,200	\$26,000
HRDC Galavan	Computer system with	\$1,600	\$400	\$2,000
Bozeman	printer			
	Total	\$506,000	\$126,500	\$632,500

Staff person handling: Sandra Straehl

Date/location: April 7, 2005 in Helena, MT

Item: STP-funded Transit Capital Assistance

### **Background**

Flexible funding provisions originally created by ISTEA made it possible for states to use non-FTA Federal funding sources such as the Surface Transportation Program (STP) to fund transit. *TranPlan 21*, which was adopted in 1995 and updated in 2002, committed to transferring up to \$300,000 in STP funds annually to purchase capital equipment for transit agencies. These funds are administered in the same fashion as the Federal Transit Administration's (FTA) Section 5310 and 5311 capital assistance grant programs.

Each year, MDT's transit staff requests applications from eligible transit providers, conducts regional application training workshops, and works with representatives from Department of Public Health and Human Services (DPHHS), the Governor's Office of Indian Affairs, and representatives from transit user groups to review applications and develop a recommended list of projects. This group of representatives make up the Selection and Screening Committee<sup>3</sup>. The transportation commission has the ultimate approval authority under MCA 60-2-110.

This transfer of STP funds to transit has greatly enhanced the services Montana's transit operators provide to Montana residents who depend on these services for basic transportation. No state funds are used for non-federal share on these projects.

### Attachment A

Recommended expenditures of FY 2006 STP funds for Transit Capital Assistance. The recommendations shown are the result of a review by a 10-member Selection and Screening Committee.

#### Attachment B

Proposed projects that ranked below the available funding level.

#### Staff recommendations

Staff recommends the Transportation Commission approve the capital assistance projects in attachment A to be funded 80 percent with federal STP funds and 20 percent with local matching funds.

<sup>&</sup>lt;sup>3</sup> The State Selection and Screening Committee includes representatives from the Governor's Office of Indian Affairs, Department of Public Health and Human Services (aging services, developmentally disabled, vocational rehabilitation, and Medicaid/Medicare), and a non-participating transit service provider (Great Falls Transit was chosen this year). Beginning this year, customers representing the elderly, disabled, and low-income groups were asked to participate in the application review and recommendation process, bringing the total number of members to 10.

Notes/discussion

# **FY2006 Capital Assistance** Recommended projects

Funding Source: Surface Transportation Program (STP)

Recipient	Project Description	Federal Share	Local Share	Total
A.W.A.R.E., Inc.	Two 7-passenger mini vans	\$41,600	\$10,400	\$52,000
Anaconda				
Daniels Memorial	One 12-passenger bus with	\$40,400	\$10,100	\$50,500
Healthcare	wheelchair lift			
Scobey				
Glen-Wood, Inc.	One mini van conversion with	\$32,800	\$8,200	\$41,000
Plentywood	ramp			
Glen-Wood, Inc.	One 10-passenger bus with	\$34,400	\$8,600	\$43,000
Plentywood	wheelchair lift			
BSW, Inc.	Two 12-passenger small buses	\$84,000	\$21,000	\$105,000
Butte	with wheelchair lift and radios			
Big Horn Hospital	One 16-passenger bus with	\$43,200	<b>\$10,800</b>	\$54,000
Association	wheelchair lift			
Hardin				
Liberty County COA	Radio equipment for existing	\$5,600	\$1,400	\$7,000
Chester	vehicle			
Richland	One 12-passenger bus with	\$18,000	\$4,500	\$22,500
Opportunities, Inc.	wheelchair lift			
Sidney (partial)				
	Total	\$300,000	\$75,000	\$375,000

# FY2006 Capital Assistance

The following proposed projects fell below the available funding level.

Funding Source: Surface Transportation Program (STP)

Recipient	Project Description	Federal Share	Local Share	Total
HRDC/Galavan	One 12-passenger bus with	\$40,400	\$10,100	\$50,500
Bozeman	wheelchair lift			
Mission Mountain	One 7-passenger mini van	\$20,800	\$5,200	\$26,000
Enterprises				
Ronan				
Big Horn Hospital	One Mini van conversion with	\$32,800	\$8,200	\$41,000
Association	ramp			
Hardin				
Reach, Inc.	One 7-passenger mini van	\$20,800	\$5,200	\$26,000
Bozeman				
AWARE, Inc.	Four 7-passenger mini vans	\$83,200	\$20,800	\$104,000
Anaconda				
AWARE, Inc.	Radio Equipment	\$16,800	\$4,200	\$21,000
Anaconda				
Liberty County COA	Computer system with printer	\$2,400	\$600	\$3,000
Chester				
HRDC Galavan	Computer system with printer	\$1,600	\$400	\$2,000
Bozeman				_
	Total	\$218,800	\$54,700	\$273,500

Staff person handling: Jim Lynch

Date/location: April 7, 2005 in Helena, MT

Item: Commission discussion

### Discussion items

• Update on tribal relations committee

• Update on reauthorization of the federal transportation act
For your information, the US Department of Transportation has a website on the reauthorization of TEA-21 at <a href="http://www.fhwa.dot.gov/reauthorization/">http://www.fhwa.dot.gov/reauthorization/</a>.

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Letting lists

# Background

Staff will distribute the most current lists of upcoming projects slated for advertisement and bid letting.

### Staff recommendation

Staff recommends approval of the letting lists.

Notes/discussion

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Certificates of completion

# Background

Attached are certificates of completion for January and February of 2005.

### **Summary**

Month	Original contract amount	Final payment amount	
	(monthly total)	(monthly total)	
January	\$2,460,286	\$2,544,503	
February	\$9,822,451	\$9,561,134	
Total	\$12,282,737	\$12,105,637	

# **Staff recommendation**

Staff recommends approval.

Notes/discussion

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Project change orders

# Background

Attached are project change orders for January and February 2005.

### Summary

Month	Total
January 2005	\$245,731.80
February 2005	\$545,793.42
	\$791,525.22

## Staff recommendation

Staff recommends approval.

Notes/discussion

Agenda item: 18a

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Liquidated damages

BR 8-2(47)43 Lyndale Overpass — Helena STPU 5807(8) North Main St — Helena

### Background

Maronick Construction (now Helena Sand & Gravel, Inc.) of Helena, MT, overran the contract time by 3 days. We wrote the contractor on February 9, 2005 of the overrun of contract time.

Helena Sand & Gravel, Inc. responded they were in agreement with the assessment of three days for a total assessment of \$6,909.00.

## Summary

Award date: Oct 11, 2001 Proceed date: Nov 16, 2001 Work began: Nov 12, 2001 Work completed: Oct 1, 2004 Contract time: Work extensions: 120 working days 56 days Time used: 179 days Overrun: 3 days

Total contract amt: \$5,843,595

### Staff recommendations

We recommend assessing 3 days at \$2,303 per day for a total of \$6,909.

Notes/discussion

Agenda item: 18b

Staff person handling: Loran Frazier, Acting Chief Engineer

Date/location: April 7, 2005 in Helena, MT

Item: Liquidated damages

IM 15-8(60)354 – Shelby  $N \otimes S$ 

### Background

Helena Sand & Gravel, Inc. of Helena, MT, overran the contract time by 3 days. We wrote the contractor on February 4, 2005 of the overrun of contract time. They were informed they had 30 days in which to respond if they intend to request a waiver from the commission. They were also informed that if a written reply was not received within 30 days, the liquidated damages would stand. As there was no response from the contractor, our recommendation is noted below.

## Summary

Award date:	Apr 5, 2004	Proceed date:	May 3, 2004
Work began:	July 13, 2004	Work completed:	Sep 28, 2004
Contract time:	60 working days	Work extensions:	0 days
Time used:	63 days	Overrun:	3 days

Total contract amt: \$1,400,000

### Staff recommendations

We recommend assessing 3 days at \$1,192 per day for a total of \$3,576.

Notes/discussion